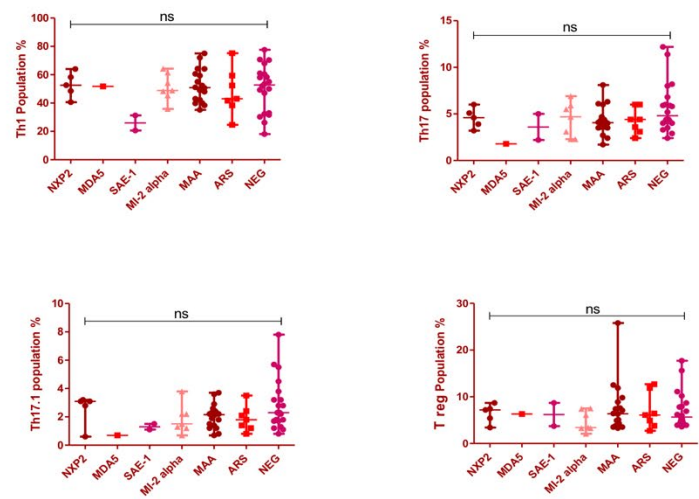
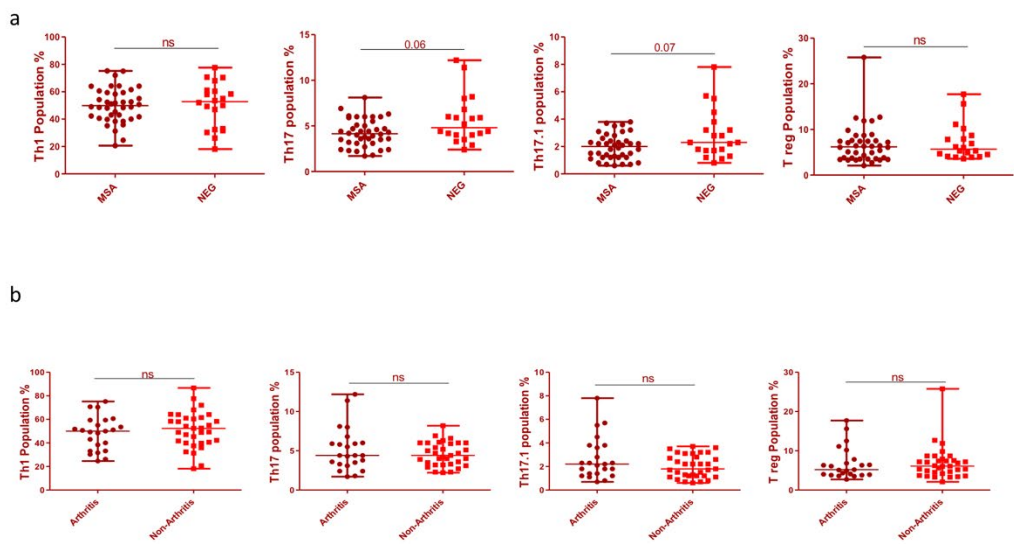


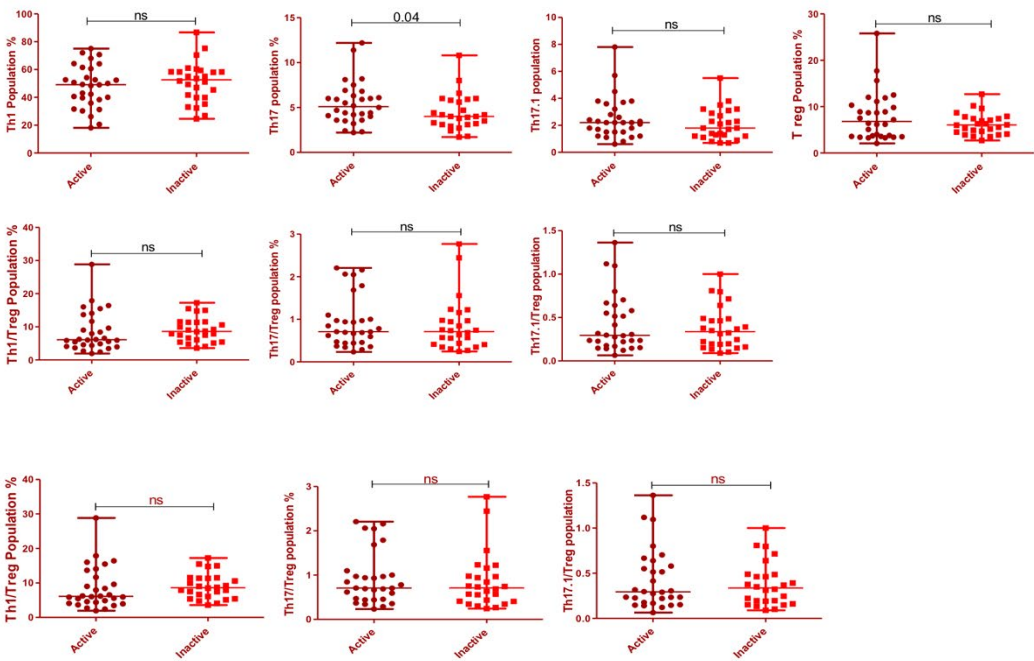
Supplementary figure I: Representative dot plot of T helper cell subsets in IIM stratified by MSA



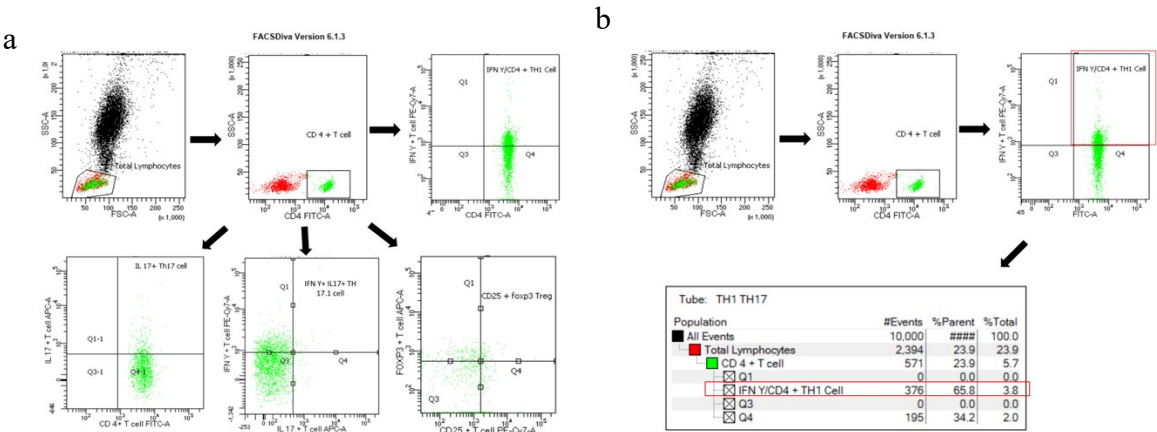
Supplementary figure II. Representative dot plot between different subsets of IIM stratified by MSA positivity and presence of arthritis



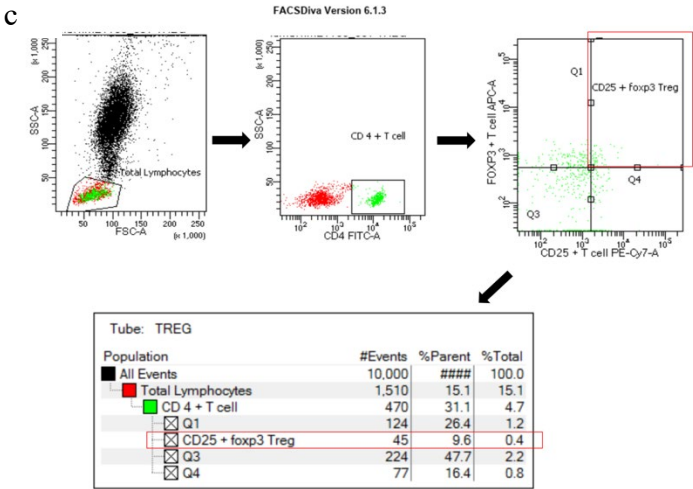
Supplementary figure III: Representative dot plot of T helper cell subsets in Active vs Inactive and their ratio (Th1, Th17 & Th17.1) with Treg subsets



Supplementary figure IV
Flow cytometry plots for CD4+IFN- γ +, CD4+ IL-17+, CD4+IFN- γ +IL-17+, and CD4+CD25+ FOXP3+ for Th1, th17, Th17. 1 and Treg cells.



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The standard gating for CD4+ T helper subsets in stimulated vs unstimulated human blood. The FSC (Forward scatter and SSC (Side scatter) plots were used for lymphocyte gating based on granularity and size. The CD4 + T cells were gated using a dual colour dot plot of side scatter versus CD4+ FITC. The specific T cell subsets were analyzed using a dual colour dot plot of 1) Th1 subsets were gated using CD4+FITC vs IFN-Y PE Cy7 double-positive population. 2) Th17 subsets were gated using CD4+ FITC vs IL17 Alexa flour647 expressing a double-positive population. 3) Th17.1 subsets were gated on CD4+ FITC positive population and selected IL17 Alexa flour647 vs IFN γ + PE-cy7 double-positive population, 4) Treg subsets were gated on CD4+ FITC positive population and selected CD25+ PE-cy7 vs FoxP3+ Alexa flour647 double-positive population. (1,2)

References

1) Berner B, Akça D, Jung T, Muller GA, Reuss-Borst MA. Analysis of Th1 and Th2 cytokines expressing CD4+ and CD8+ T cells in rheumatoid arthritis by flow cytometry. J Rheumatol. 2000 May;27(5):1128-35. PMID: 10813277.

2) Jain A, Singh H, Nath A, Chaturvedi S, Ajmani S, Misra DP, Agarwal V. Distinct T-cell immunophenotypic signature in a subset of sarcoidosis patients with arthritis. J R Coll Physicians Edinb. 2020 Sep;50(3):226-232. doi: 10.4997/JRCPE.2020.304. PMID: 32936094.